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| <b>Notice of Allowability</b> | <b>Application No.</b> | <b>Applicant(s)</b>  |  |
|                               | 10/790,166             | LEWELLEN, RICHARD R. |  |
|                               | <b>Examiner</b>        | <b>Art Unit</b>      |  |
|                               | Dmitry Suhol           | 3714                 |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's amendment filed 4/6/2005.
2. ☒ The allowed claim(s) is/are 3-17.
3. ☒ The drawings filed on 01 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
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### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Kathleen Bowen on April 14<sup>th</sup>, 2005.

The application has been amended as follows:

Replace the abstract with the attached abstract provided herewith.

### **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance: The specific limitations of (with respect to claims 3 and 9) "...a balance beam which can balance on a top edge of said tub sides, wherein said balance beam comprises a first end and a second end, wherein said first end has a first means for attaching a counter weight, and said second end has a second means for attaching a sample weight such that the sample weight attached to said second end will be submerge in the fluid in said tub when the balance beam is balancing on the top edge of said tub sides", (with respect to claim 16) "...placing a boat in said tub, wherein said boat is a stable boat, sized to float in said tub without touching the sides of said tube; placing weights into said boat, wherein the weights are not enough to make the boat sink; weighing the overflow fluid

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which has flowed into the overflow catcher; and, comparing the weight of the overflow fluid to the combined weight of the boat plus the weights placed in the boat” and (with respect to claim 17) “...balancing a balance beam on an edge of said tub, wherein said balance beam comprises a first end and a second end, wherein said first end has a first means for attaching a counter weight, and said second end has a second means for attaching a sample weight such that the sample weight attached to said second end will be submerged in the fluid in said tub when the balance beam is balancing on the top edge of said tub sides” are not anticipated or made obvious over the prior art of record in the examiners opinion. For example, “Fluid Mechanics-List of Demonstrations” a variety of experiments related to teaching Archimedes’ principle that involve beakers having an overflow spout, catch beakers, weight and scales, however the experiments do not disclose the use of a boat sized appropriately which receives weights and where the overflow fluid is weighed and compared to the weight of the weights in the boat. Instead the experiments either directly place a weight into a tub full of liquid or use a boat and associated weights to measure the rise and fall of the liquid level associated therewith. Levin ‘156 discloses an action game which teaches a tub full of liquid with floating boats therein and balance beam used to propel weights into the boats, however the reference fails to teach a first means for attaching a counter weight and a second means for attaching a sample weight.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Suhol whose telephone number is 571-272-4430. The examiner can normally be reached on Mon - Friday 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jessica Harrison can be reached on 571-272-4449. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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JESSICA HARRISON  
PRIMARY EXAMINER

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Fig. 5

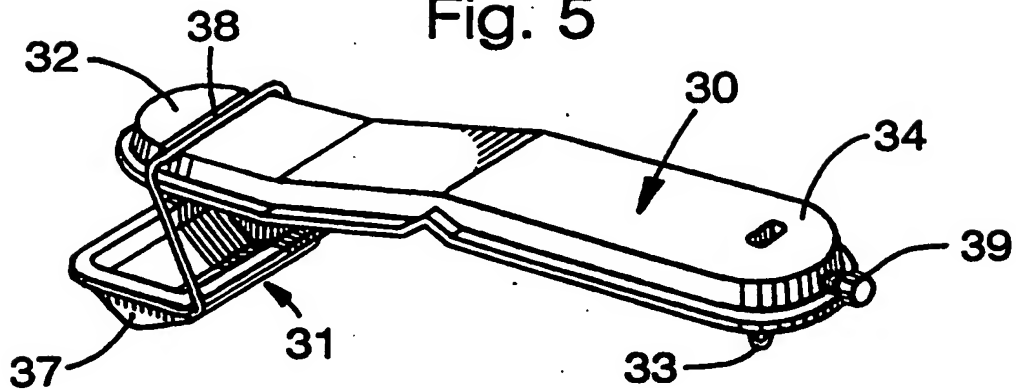


Fig. 6 (Sect. 6,7)

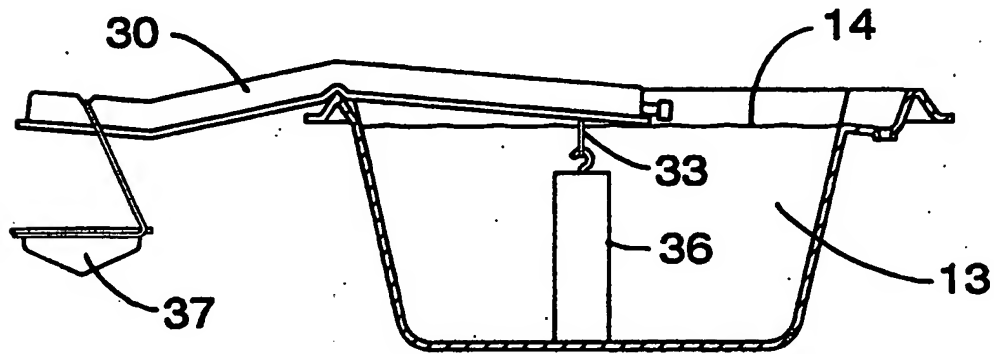
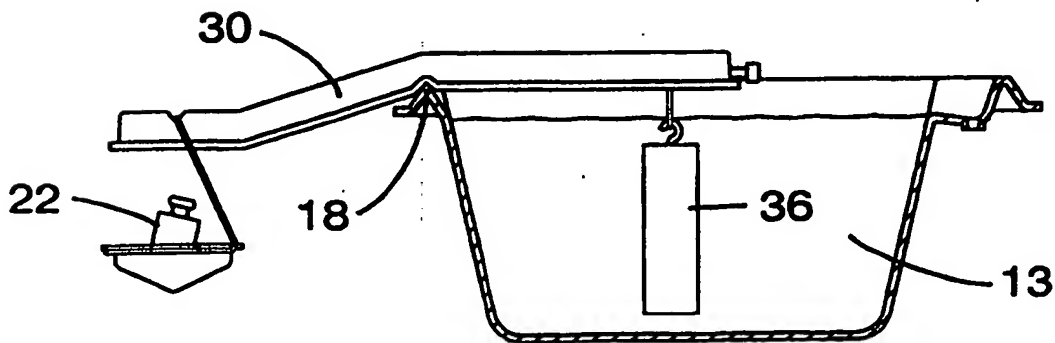


Fig. 7 (Sect. 6,7)



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Fig. 1

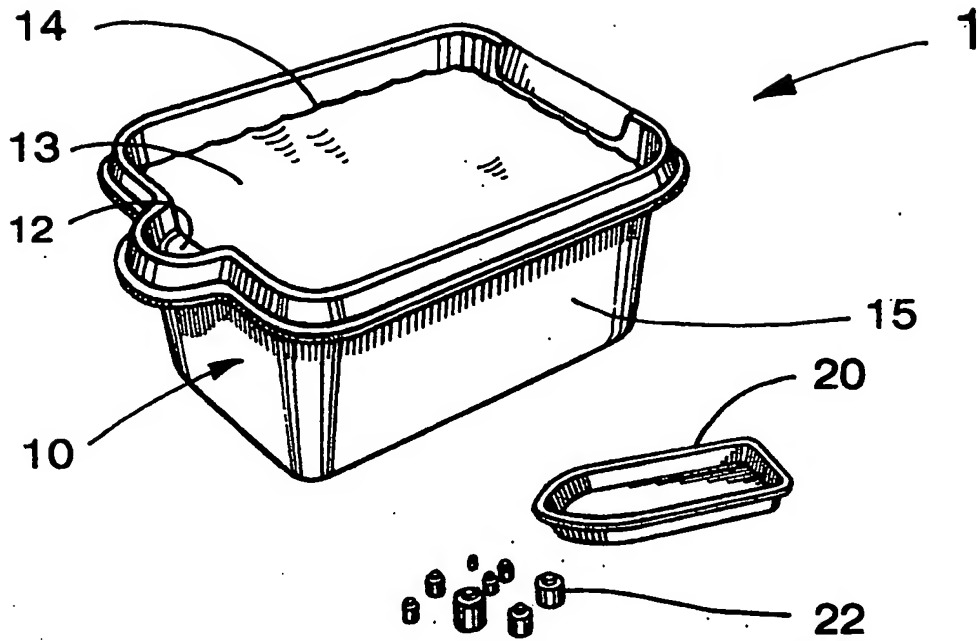
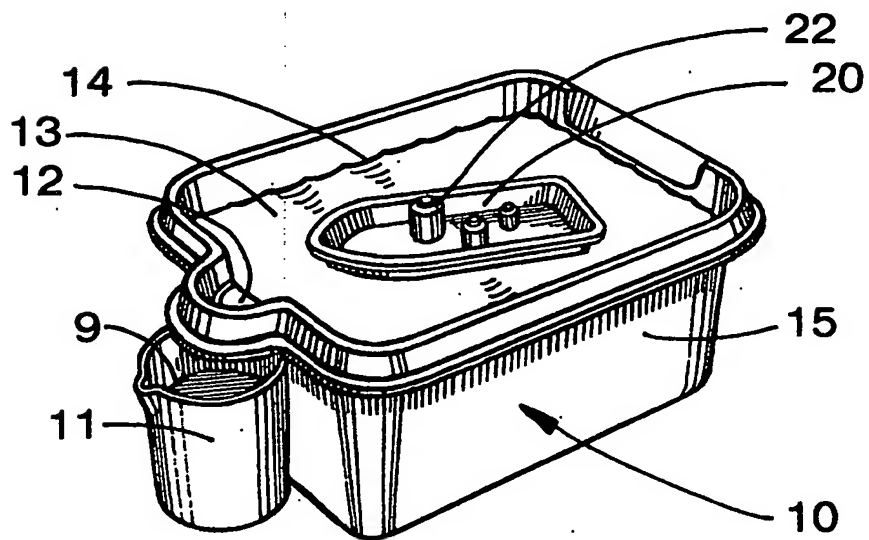


Fig. 2



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**Fig.3**

